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A New Species of *Campylocheta* Rondani (Diptera: Tachinidae) from the Iberian Peninsula

By Hans-Peter Tschorsnig, Stuttgart

With 6 figures

Summary

A new tachinid species (Diptera, Tachinidae) from the Iberian Peninsula, *Campylocheta ziegleri* **n.sp.**, is described.

Zusammenfassung

Campylocheta ziegleri **n.sp.**, eine neue Raupenfliege (Diptera, Tachinidae) von der Iberischen Halbinsel, wird beschrieben.

1. Introduction

C. Bystrowski recently described a remarkable new Polish species of *Campylocheta* Rondani, 1859 which shows a peculiarity of the ♀ postabdomen: sternite 7 is elongated, and sternite 6 is developed in the form of a spatula, giving both a beak-like appearance (see Figs. 5 and 6 in Bystrowski 2001). This feature was unknown and unique so far in *Campylocheta*. Surprisingly a new species showing the same characters of the ♀ ovipositor could be collected by the author in western Spain very recently. The prolongation of sternite 6 is most probably a synapomorphy of the two species which share more common features (see key below). The function or biological significance of this peculiarity of the ♀ ovipositor is unknown.

2. Description of *Campylocheta ziegleri* **n.sp.**

Holotype: ♂, Spain, Prov. Salamanca, Villar de Ciervo, Las Coronas, 720 m, 26. II. 2001, swept in low vegetation, leg. H.-P. Tschorsnig.

Paratypes: 10 ♂♂, 1 ♀, same data as holotype, collected in yellow pan traps; 1 ♂, same locality and collector, 29. III. 2002, in yellow pan traps; 1 ♀, same locality and collector, 1. IV. 2002, in yellow pan traps; – 1 ♀, Spain, Prov. Salamanca, Villar de Ciervo, Peña de la Campana, 680 m, 27. II. 2001, sitting on a stonewall, leg. H.-P. Tschorsnig.

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The types have been deposited in the Naturkundemuseum Stuttgart, except for two ♂ paratypes, which have been deposited in the collections of C. BYSTROWSKI (Warszawa) and J. ZIEGLER (Eberswalde).

Male (statements given within square brackets refer to male paratypes):

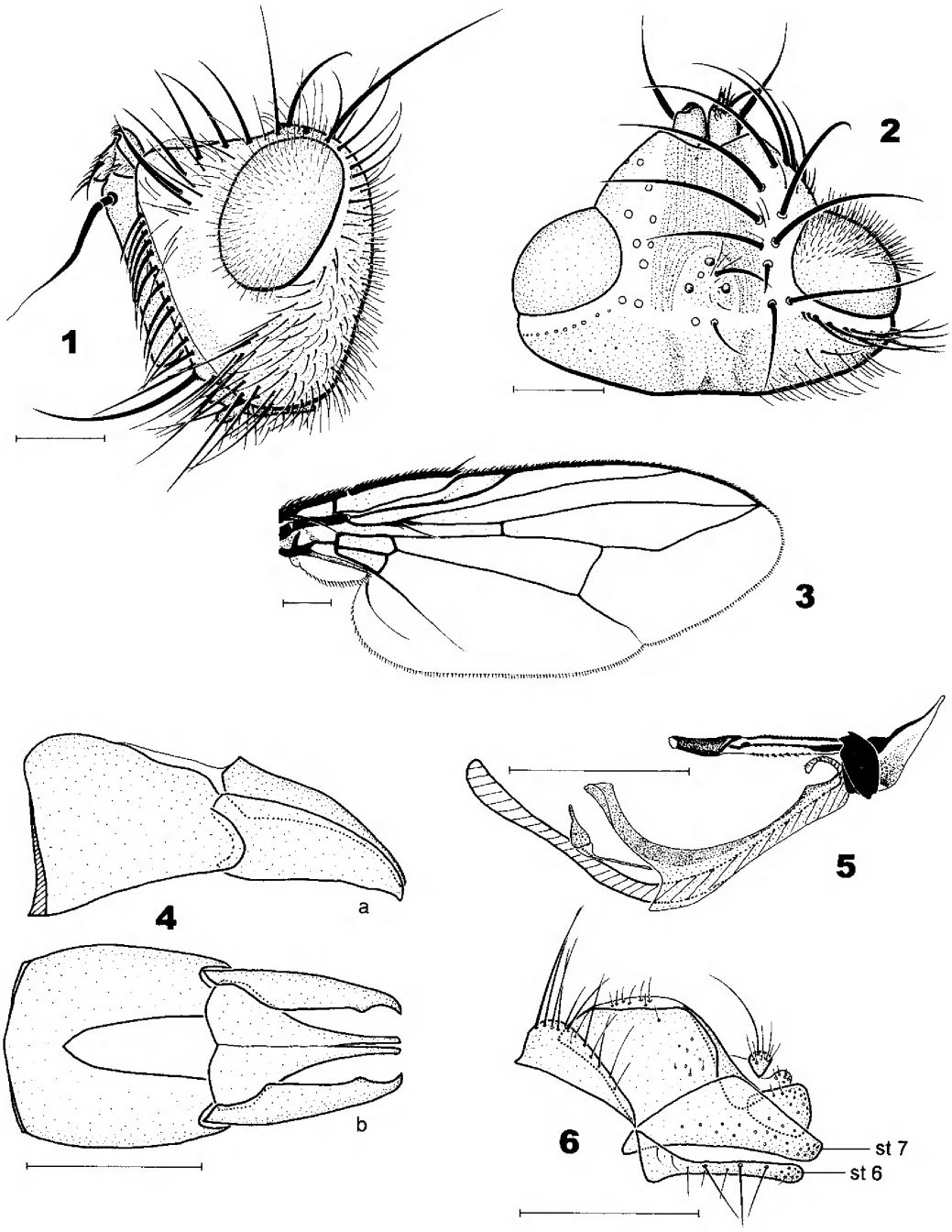
Colour: Body black. Palpus yellow. Halter brownish. Wing slightly infuscated, tegula black, basicosta yellow. Legs black, fore tibia reddish or yellow in its apical $^1/_6$ [$^1/_8$-$^1/_2$], mid tibia yellow in its apical $^2/_3$ [$^1/_2$-$^5/_6$], hind tibia yellow, except a small black part basally and ventrally. Head, thorax, and abdomen covered with grey pruinescence with dark reflecting pattern; dark longitudinal stripes on thorax indistinct.

Head (Fig. 1): Eye densely covered with long hairs. Frons at its narrowest point 1.42 [1.28-1.37] times as wide as an eye in dorsal view [it cannot be ruled out that the frons of the paratypes suffered some shrinkage because they were all dried from the liquid of the yellow pan traps]. Outer vertical bristle present, as long as $^3/_5$ [$^1/_2$-$^2/_3$] of inner vertical bristle. Postocular setae long, bent forwards. Ocellar bristles strong, reclinate. Frontal bristles descending on parafacial to a level near middle of eye. Frons with 2-3 irregular rows of hairs outside frontal row, the foremost setae usually bristle-like. Parafacial with 7 [6-12] hairs below lowest frontal bristle, slightly wider than [as wide as or slightly wider than] third antennal segment. Facial ridge straight in profile, with a row of strong bristles on lower $^5/_6$ [$^4/_5$-$^7/_8$]. Vibrissa arising at level of lower facial margin, the latter not visible in lateral view. Face deeply sunken. Third antennal segment 5.6 [5.5-6.9] times as long as second antennal segment. Arista bare, thickened on its basal $^3/_5$ [$^1/_2$-$^2/_3$]. Second aristomere as long as wide. Gena, when seen in profile, about $^2/_3$ [$^1/_2$-$^4/_5$] vertical diameter of eye. Genal dilation predominantly black haired, in horizontal direction with 8 [7-10] rows of black hairs or setulae, the anteriormost 1-2 rows developed as bristles. Posterodorsal half of head with 4 [3-4] rows of black setulae behind the postocular row, posteroventral half pale haired. Prementum stout, about 1.5 times as long as its diameter. Palpus well-developed, only slightly enlarged apically, with black hairs.

Thorax: Prosternum bare. Proepisternum covered with pail hairs. Postpronotum with 4 bristles: the 3 basal bristles arranged in a straight line, anterior bristle placed before middle basal bristle. Scutum with 2+2 [20-3] pairs of acrostichal bristles, 3+3 pairs of dorsocentral bristles, 0+3 intra-alar bristles. Katepisternum with 3 bristles. Katepimeron bare. Anepimeral seta not differentiated. Scutellum with strong basal, subapical and apical bristles, the latter crossed; surface of scutellum with erect hairs and 1-2 pairs of erect preapical bristles.

Wing (Fig. 3): Costigial bristle present, strong. Costal bristle strong, 1.5 [1.5-2.0] times as long as crossvein r-m. Second costal portion with fine hairs ventrally. Base of R_{4+5} with a bristle and 1-2 hairs. R_1 and CuA_1 bare. Fourth costal section 2.0 [1.8-2.6] times as long as sixth costal section. Section of M between crossveins r-m and dm-cu 1.6 [1.3-1.9] times as long as section between dm-cu and bend of M. Bend of M without or with a very short stub. Wing cell r_{4+5} closed just at wing margin.

Legs: Claws 0.8 [0.7-0.9] times as long as fifth tarsal segment. Inner anterior surface of fore coxa bare. Fore tibia with a row of 6 [3-6] anterodorsal bristles and 2 posterior bristles; preapical anterodorsal seta at least as long as preapical dorsal seta. Mid tibia with 3-5 anterodorsal bristles, 3-5 posterodorsal bristles, 1 strong ventral bristle. Hind tibia with 5-8 anterodorsal bristles, 4-6 posterodorsal bristles, 3-4 anteroventral bristles, and 3 dorsal preapical setae; preapical posteroventral seta short, hair-like. Hind coxa bare on posterodorsal margin.



Figs. 1-6. *Campylocheta ziegleri* **n.sp.** – 1. ♂ head, lateral view; – 2. ♀ head, dorsal view; – 3. right wing; – 4. epandrium, surstyli, and cerci, lateral (a) and dorsal (b) views, hairs omitted; – 5. phallapodeme, ejaculatory apodeme, pregonite, postgonite, and aedeagus; – 6. ♀ ovipositor. – Scales: 0.5 mm.

Abdomen: Middorsal depression on syntergite 1+2 confined to anterior $^{7}/_{8}$ [$^{3}/_{4}$-$^{1}/_{1}$] of that segment. Syntergite 1+2 with 2 [2-3] pairs of lateral marginal bristles; tergite 3 with 1 pair of median marginal bristles, 2-3 pairs of lateral marginal bristles,

1 pair of median discal bristles, and 1 pair of lateral discal bristles; tergite 4 with 1 pair of median marginal bristles, 3 pairs of lateral marginal bristles, 1 pair of median discal bristles, and 2 pairs of lateral discal bristles; tergite 5 with 2 irregular rows of strong discal bristles, and 2-3 rows of weaker marginal bristles. Hairs on abdomen erect. Postabdomen: (Figs. 4-5): Tergite 6 with 6 hairs on hind margin, fused with segment 7+8. Sternite 6 asymmetrical (as in groundplan of Tachinidae), on its right side separated from segment 7+8 by a membranous suture. Sternite 5 with the normal deep V-like incision. Surstyli and cerci about as long as epandrium; cercus rounded apically in lateral view (Fig. 4a). Processus longi rod-like. Arms of epandrium widely separated. Postgonite short, with 2 teeth apically. Ejaculatory apodeme short. Prolongation of phallapodeme (= intermedium) developed as a true process. Aedeagus as in Fig. 5.

Body length: 6.6 [5.4-7.3] mm.

Female, differing from male as follows:

Tibia all yellow, except a small black part basally and ventrally. Frons at its narrowest point 1.51-1.57 times as wide as an eye in dorsal view. Two orbital bristles present, the posterior one lateroclinate (Fig. 2). Parafacial about 1.5 times as wide as third antennal segment. Antenna distinctly shorter than in ♂, third antennal segment 2.9-3.7 times as long as second antennal segment. Arista thickened on its basal $^2/_5$-$^1/_2$. Claws about 0.5 times as long as fifth tarsal segment. Postabdomen (Fig. 6): Sternite 6 spatula-like, the strong lateral hairs as long as sternite 6. Tergite 7 entire, large. Sternite 7 strongly elongated. Tergite 8 divided into 2 hemitergites. Seventh spiracle in intersegmental membrane between segments 6 and 7.

3. Features to distinguish the new species from related species

The following key may be used to distinguish *Campylocheta ziegleri* n.sp. from other species of *Campylocheta*:

1 Genal dilation predominantly pale haired, in horizontal direction with 0-5 rows of black hairs or setulae. Costal bristle usually weak and short (strong only in *C. fuscinervis*). – ♂: frons narrower than an eye or at most slightly wider; surstyli and cerci shorter than epandrium (except in *C. abdominalis*), cercus acute apically. – ♀: frons narrower than an eye or at most 1.3 times as wide; posterior orbital bristle usually proclinate (lateroclinate in individual specimens of *C. fuscinervis*); sternite 6 normal plate-like, sternite 7 not elongated (see Figs. 42-51 of Shima 1985) ..... other species of *Campylocheta*

– Genal dilation predominantly black haired, with 6-10 rows of black hairs or setulae (including the anteriormost 1-2 rows of bristles). Costal bristle strong, 1.5-2.0 times as long as crossvein r-m. – ♂: frons about 1.3-1.4 times as wide as an eye; surstyli and cerci as long as epandrium, cercus rounded apically in lateral view (Fig. 4a of this paper, and Fig. 3 of Bystrowski 2001). – ♀: frons about 1.4-1.6 times as wide as an eye; posterior orbital bristle lateroclinate (Fig. 2); sternite 6 spatula-like, sternite 7 strongly elongated (Fig. 6 of this paper, and Fig. 6 of Bystrowski 2001) **2**

2 Postsutural acrostichal bristles normally developed. – ♂: Parafacial narrower than third antennal segment; tibia almost black; cercus shorter than surstylus, both strongly developed and rounded apically (Fig. 3 of Bystrowski 2001). – ♀: The spatula-like sternite 6 strongly concave dorsally, its lateral hairs about half as long as the segment .... ***mariae*** Bystrowski

– Postsutural acrostichal bristles weak, often hair-like. – ♂: Parafacial as wide as or slightly

wider than third antennal segment; fore tibia apically more or less yellow, mid and hind tibia predominantly yellow (at least ventrally); cercus as long as surstylus, not as strongly developed as in *C. mariae*, surstylus narrowed apically (Fig. 4). – ♀: Dorsal surface of sternite 6 nearly flat, the longest lateral hairs about as long as the segment ..... ***ziegleri* n.sp.**

4. Etymology

The new species, *Campylocheta ziegleri* n.sp., is dedicated to my friend Dr. JOACHIM ZIEGLER (Eberswalde) in honour for his nice revision of the *Campylocheta fuscinervis*-group (ZIEGLER 1996).

5. Acknowledgements

The author is grateful to C. BYSTROWSKI (Warszawa, Poland) for the donation of two paratypes of *Campylocheta mariae* Bystrowski.

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Author's address:

Dr. HANS-PETER TSCHORSNIG, Staatliches Museum für Naturkunde Stuttgart (Museum am Löwentor), Rosenstein 1, D-70191 Stuttgart;
e-mail: tschorsnig.smns@naturkundemuseum-bw.de.

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